

mg



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,652	11/21/2001	Michael L. Bessire	10013342-1	1407

7590 12/03/2004

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

PUENTE, EMERSON C

ART UNIT	PAPER NUMBER
----------	--------------

2113

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,652

Applicant(s)

BESSIRE, MICHAEL L.

Examiner

Emerson C Puente

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is made **Final**.

Claims 1-10 and 12-19 have been examined. Claim 11 has been cancelled.

Applicant's amendment necessitated the new ground(s) of rejection under 35 USC § 112 presented in this Office action. Applicant's amendments is also still rejected under 35 U.S.C. 102(e) as being anticipated by Davis.

Claim Objections

Claim 17 is objected to because of the following informalities:

In regards to claim 17, please change "even" to "event"(see last line of claim).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10 and 12-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In regards to claims 1, 5, 8, 12, and 17, the limitation “without host intervention” is not supported in the specification. The remaining claims, not specifically mentioned, are all rejected because they are dependent upon one of the claim mentioned above.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,701,449 of Davis et al. referred hereinafter “Davis”.

In regards to claim 1, Davis discloses a computer system comprising:

a server coupled to a client via a network (see column 1 lines 15-20);

a first iSCSI controller coupled to the server via the network for receiving an I/O request (see column 2 lines 55-58);

a second iSCSI controller coupled to the server via the network for receiving an I/O request (see column 2 lines 55-58), said first iSCSI controller adapted to assume the role of said second iSCSI controller and process the I/O request therefor without host intervention in the event the second iSCSI controller fails (see column 4 lines 5-15 and 40-45); and

Art Unit: 2113

a storage system for reading and writing an I/O request received from the first and second iSCSI controllers, the storage system being coupled to said first and second controllers (see column 2 lines 58-60).

In regards to claim 2, Davis discloses:

wherein the first and second iSCSI controllers have been assigned first and second IP addresses (see column 4 lines 40-45).

In regards to claim 3, Davis discloses:

wherein the first iSCSI controller is adapted to assume the IP address of the second iSCSI controller (see column 4 lines 40-45)

In regards to claim 4, Davis discloses:

wherein the storage system includes a fiber channel storage unit (see column 2 line 67).

In regards to claim 5, Davis discloses:

providing a first iSCSI controller having a first network address for processing an I/O request sent to the first network address (see column 2 lines 55-58 and column 4 lines 40-45);

providing a second iSCSI controller having a second network address for processing an I/O request sent to the second network address (see column 2 lines 55-58 and column 4 lines 40-45);

sensing the failure of the first controller (see column 4 lines 25-30);

arranging for the second controller to assume control of the first network address to receive the I/O request sent to the first address (see column 4 lines 40-45); and

processing the I/O request without host intervention (see column 4 lines 5-15 and 40-45);

Art Unit: 2113

In regards to claim 6, Davis discloses:

wherein the first and second network addresses are IP addresses (see column 4 lines 40-45).

In regards to claim 7, Davis discloses:

wherein the storage system includes a fiber channel storage unit (see column 2 line 67).

In regards to claim 8, Davis discloses a computer system comprising:

a server connected to network (see column 1 lines 15-20);

a first iSCSI controller having a first network address for processing an I/O request sent to/from the first network address, said first iSCSI controller connected to the server via the network (see column 2 lines 55-58 and column 4 lines 40-45);

a second iSCSI controller having a second network address for processing an I/O request without host intervention, said I/O request sent to/from the second network address, said second iSCSI controller connected to the server via the network, said second iSCSI controller adapted to assume responsibility for the first network address in the event the first iSCSI controller fails (see column 2 lines 55-58 and column 4 lines 5-15 and 40-45); and

a storage system connected to the first and second iSCSI controllers (see column 2 lines 58-60),.

In regards to claim 9, Davis discloses:

wherein the first and second network addresses are IP addresses (see column 4 lines 40-45).

In regards to claim 10, Davis discloses:

Art Unit: 2113

wherein the storage system includes a fiber channel storage unit (see column 2 line 67).

In regards to claim 12, Davis discloses a method for processing I/O requests to or from a storage system via first and second iSCSI controllers, the iSCSI controllers having first and second network addresses (see column 4 lines 40-45), comprising the steps of:

establishing communication between the first iSCSI controller and the second iSCSI controller (see column 4 lines 25-30);

storing the second address in memory of the first iSCSI controller (see column 4 lines 40-45);

monitoring the second controller to detect if it has failed (see column 4 lines 25-30); and
processing an I/O request sent to the second network address by the first controller, in the event the second controller fails, said processing occurring without host intervention (see column 4 lines 5-15 and 40-45);

In regards to claim 13, Davis discloses:

wherein the first and second network addresses are IP addresses (see column 4 lines 40-45).

In regards to claim 14, Davis discloses:

reading or writing the I/O request to the storage system (see column 3 lines 1-5).

In regards to claim 15, Davis discloses:

detecting the failure of the second controller (see column 4 lines 25-30).

In regards to claim 16, Davis discloses:

wherein the storage system includes a fiber channel storage unit (see column 2 line 67).

In regards to claim 17, Davis discloses a computer program for performing the steps of a method for processing I/O requests to or from a storage system via first and second iSCSI controllers, the iSCSI controllers having first and second network addresses (see column 4 lines 40-45), the method comprising the steps of:

establishing communication between the first iSCSI controller and the second iSCSI controller (see column 4 lines 25-30);

storing the second address in memory of the first iSCSI controller (see column 4 lines 40-45);

monitoring the second controller to detect if it has failed (see column 4 lines 25-30); and
processing an I/O request sent to the second network address by the first controller, in the event the second controller fails, said processing occurring without host intervention (see column 4 lines 5-15 and 40-45);

In regards to claim 18, Davis discloses:

wherein the first and second network addresses are IP addresses (see column 4 lines 40-45).

In regards to claim 19, Davis discloses:

wherein the method further comprises the step of reading or writing the I/O request to the storage system (see column 3 lines 1-5).

Response to Arguments

Applicant's arguments filed October 25, 2004 have been fully considered but they are not

deemed to be persuasive.

In response to applicant's argument on bottom of page 8 that cites: "From the above description, it appears that the SCMs communicate with the network through a host interface (see also element 210, FIG. 2). This suggests that in the event of a failure, the host retries the request in order for the request to be processed by the SCM that is in an operational state, otherwise data loss may occur. (see also col. 1, lines 50-55) Thus, Davis does not disclose, teach, or suggest a second iSCSI controller coupled to the server via the network for receiving an I/O request, said first iSCSI controller adapted to assume the role of said second iSCSI controller and *process the I/O request therefor without host intervention* in the event the second iSCSI controller fails," examiner respectfully disagrees.

Davis does not disclose or suggest in the specification, "in the event of a failure, the host retries the request in order for the requests to be processed by the SCM", as the applicant claims. Rather, Davis discloses status monitors in the controllers which monitors the status of the remote controllers (see column 4 lines 25-30) and further discloses having redundant SCMs that are connected to the same network which allows either of the SCMs to respond to the IP address of the other SCM in the event of failure of one of the SCMs (see column 4 lines 6-10), thus indicating assuming the role of the second iSCSI controller and processing the I/O request therefor without host intervention. Examiner maintains his rejection.

Conclusion

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2113


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emerson C Puente whose telephone number is (571) 272-3652. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Emerson Puente
11/29/04


ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100